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*PATENT, TRADEMARK, COPYRIGHT
AND UNFAIR COMPETITION LAW
AND RELATED LITIGATION*

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TO: Examiners Ghatt and Burr

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Date: July 9, 1997

FROM: David E. Pritchard, Esq.
Re: Application Serial No. 08/480,836
Title: Temporary Implant for Use as an Anchor in the Mouth
U.S. Serial No.: 08/480,836
Applicants: Sachdeva et al.

In follow up to our brief telephone conversation on July 8, 1997, I have enclosed a revised version of sample claims including potential claim amendments, as well as a sample statement for potential use in illustrating the patentability of the claims relative to the "Impaction Post" article as requested. The sample claims and statement provided in this facsimile are for discussion purposes only and are not to be construed as a formal Reply by the Applicants. Once you have had an opportunity to review the sample claims and statement, please call me so that we may address any outstanding issues.

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U.S. Serial No.: 08/480,836
TEMPORARY IMPLANT FOR USE AS AN ANCHOR IN THE MOUTH
Applicants: Sachdeva et al.

FOR DISCUSSION PURPOSES ONLY

Sample Statement regarding the "Impaction Post" article

Applicants' claimed invention patentably distinguishes over the impaction post shown and described in the instruction booklet "*Impaction Posts: A Mechanical Aid to Suturing*," a copy of which was provided by Applicants to the Patent Office in the Supplemental Information Disclosure Statement filed on February 28, 1997.

As shown in pending claims 38-83, Applicants claim an implant for use as an orthodontic or orthopedic load-bearing anchor in the mouth in creating a stabilizing or moving force. That is, the implant itself receives tooth-moving or stabilizing (orthodontic) or bone-moving (orthopedic) loads.

However, Applicants' claimed invention is not shown or suggested in the Impaction Post booklet. Upon a review of the Impaction Post article, one of ordinary skill in the art would immediately recognize that the impaction post shown and described is unsuitable for use as an orthodontic or orthopedic load-bearing anchor.

Rather than being an anchor capable of bearing orthodontic or orthopedic loads, the post (shown in Fig. 1 on page 1 of the booklet) is a periosteal suture used for tying off surgical thread in maintaining a flap or graft in place. See Figs. 9 and 10 on page 7; and text on page 8 of the booklet. The surgical thread is passed through interdental spaces and/or through the surrounding tissues, and, as noted on page 8 of the booklet, the tension on the thread (and therefore on the impaction post) should not be over-excessive, so as to avoid tissue injury due to post-surgical edema.

Because of this tension limitation on the impaction post/periosteal suture, one of ordinary skill in the orthodontic art would find no suggestion in the Impaction Post article of an implant for use as an orthodontic or orthopedic load-bearing anchor in the mouth, as claimed by Applicants. Accordingly, the invention embodied in claims 38-83 patentably distinguishes over the post/periosteal suture shown in the Impaction Post booklet.

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TEMPORARY IMPLANT FOR USE AS AN ANCHOR IN THE MOUTH
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Sample Claims:

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✓38. (Amended) An implant for use with an orthodontic appliance, the implant for use as an orthodontic or orthopedic load-bearing anchor in the mouth in creating a stabilizing or moving force, the implant comprising:

an elongated body having an in-bone portion connected to an above-bone portion, said in-bone portion and said above-bone portion each having an inner end and an outer end, the cross-sectional area of said above-bone portion inner end being greater than the cross-sectional area of said in-bone portion outer end, thereby forming a shoulder having a bone-contacting surface on said above-bone portion inner end capable of resting on a part of the bone surface adjacent to an opening in the bone when said implant is positioned in the mouth;

said elongated body further including a securing section for attaching an orthodontic appliance to said elongated body.

✓49. (Amended) An implant including an orthodontic appliance, the implant for use as an orthodontic or orthopedic load-bearing anchor in the mouth in creating a stabilizing or moving force, the implant comprising:

an elongated body having an in-bone portion connected to an above-bone portion, said in-bone portion and said above-bone portion each having an inner end and an outer end, the cross-sectional area of said above-bone portion inner end being greater than the cross-sectional area of said in-bone portion outer end, thereby forming a shoulder having a bone-contacting

surface on said above-bone portion inner end capable of resting on a part of the bone surface adjacent to an opening in the bone when said implant is positioned in the mouth;

said implant further including an integrally formed orthodontic appliance extending from said above-bone portion of said elongated body.

✓ 50. (Amended) An implant for use ~~with an orthodontic appliance, the implant for use~~ as an orthodontic or orthopedic load-bearing anchor in the mouth in creating a stabilizing or moving force, the implant comprising:

an elongated body having an inner end, an outer end, a securing section for attaching an orthodontic appliance to said implant, and a retention portion for assisting in securing said implant within an opening in a bone surface in the mouth;

said retention portion including a section of the elongated body extending from one of said inner end and said outer end at least part-way toward the other of said inner end and said outer end, said retention portion further including a tapered bore and at least one longitudinal cut, said tapered bore and said longitudinal cut extending from said one of said inner and outer ends with said tapered bore having a cross-sectional area which gets smaller in the direction of said inner end, whereby when said implant is positioned in an opening in a bone surface of the mouth, and an orthodontic appliance having a corresponding fastening section is attached to said elongated body, a portion of the fastening section biases against a portion of the sidewall of said tapered bore and moves said retention portion radially outward thereby securing said implant in the opening in the bone surface.

54. (Amended) An implant for use with an orthodontic appliance, the implant for use as an orthodontic or orthopedic load-bearing anchor in the mouth in creating a stabilizing or moving force, the implant comprising:

an elongated body having an inner end, an outer end, a securing section for attaching an orthodontic appliance to said implant, and a retention portion for assisting in securing said implant within an opening in a bone surface in the mouth;

said retention portion including a section of the elongated body extending from one of said inner end and said outer end at least part-way toward the other of said inner end and said outer end, said retention portion being formed of a shape-memory alloy and including a bore and at least two longitudinal cuts, said bore and said longitudinal cuts extending from said one of said inner end and said outer end at least part-way toward said other of said inner end and said outer end, said longitudinal cuts forming at least two leg portions, said retention portion capable of assuming a predetermined shape in which said leg portions angle slightly radially outward when said retention portion reaches an ambient mouth temperature, thereby securing said implant in an opening in a bone surface in the mouth.

57. (Amended) An anchorage system including an onplant and an implant for use as an orthodontic or orthopedic load-bearing anchor in creating a stabilizing or moving force in the mouth, the anchorage system comprising:

an onplant having a bone-facing surface, an opposite face, and a hole extending through said onplant at an angle substantially perpendicular to said bone-facing surface;
and

an implant for use in affixing said onplant to a bone surface in the mouth, said implant having an elongated body including an inner end and an outer end, a portion of said elongated body including said inner end capable of being positioned through said hole and in an opening in a bone surface in the mouth.

63. (Amended) A method of forming an orthodontic or orthopedic load-bearing anchor for use with an orthodontic appliance, the anchor being positioned in a non-occlusal surface of the mouth for use in creating a stabilizing or moving force, comprising the steps of:

providing an implant having an elongated body which includes an inner end, an outer end, an outer circumferential surface between said inner and outer ends, and a securing section for attaching an orthodontic appliance to said elongated body; and

positioning at least a part of said elongated body, including said inner end, in an opening in a bone surface selected from the group consisting of the buccal, labial, lingual and palatal surfaces of the maxillary jawbone and the buccal, labial and lingual surfaces of the mandibular jawbone, thereby forming an anchor in a non-occlusal surface of the mouth for use in creating a stabilizing or moving force.

✓77. (Amended) A method of forming an orthodontic or orthopedic load-bearing anchor including an orthodontic appliance in a non-occlusal surface of the mouth for use in creating a stabilizing or moving force, comprising the steps of:

providing an implant having an elongated body and an integrally formed orthodontic appliance, said elongated body including an inner end and an outer end; and

positioning at least a part of said elongated body, including said inner end, in an opening in a bone surface selected from the group consisting of the buccal, labial, lingual

and palatal surfaces of the maxillary jawbone and the buccal, labial and lingual surfaces of the mandibular jawbone, thereby forming an anchor in a non-occlusal surface of the mouth for use in creating a stabilizing or moving force.

✓78. (Amended) A method of forming an orthodontic or orthopedic load-bearing anchorage system including an onplant and an implant in the mouth for use in creating a stabilizing or moving force, comprising the steps of:

placing an onplant on a bone surface in the mouth selected from the group consisting of the buccal, labial, lingual and palatal surfaces of the maxillary jawbone and the buccal, labial and lingual surfaces of the mandibular jawbone, said onplant having a bone-facing surface, an opposite face, and a hole extending through said onplant at an angle substantially perpendicular to said bone-facing surface; and

positioning a portion of an implant through said hole in said onplant and in an opening in said bone surface thereby affixing said onplant to said bone surface, said implant having an elongated body including an inner end and an outer end.